

Remarks

In view of the above amendments and the following remarks, reconsideration of the rejections and further examination are requested.

Claims 39, 41 and 43 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite. Claims 39, 41 and 43 have been amended so as to address this rejection. As a result, withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 32, 34, 36 and 37 have been rejected in three separate rejections under 35 U.S.C. §103(a). The first rejection is based on the disclosure of Vallone (US 6,642,939) in view of the disclosures of Vynne (US 5,960,081), and MPEG-7: Applications and Supporting Technologies, pages 61-64, Mohamed Abdel-Mottaleb, 1998 (hereinafter Mohamed). The second rejection is based on the disclosure of Vallone in view of the disclosures of Vynne and Augenbraun (US 5,857,181). The third rejection is based on the disclosure of Vallone in view of the disclosures of Vynne and WO 99/22502.

Claims 32 and 37 have been amended so as to further distinguish the present invention, as recited therein, from the references relied upon in the rejections, in part, by including features similar to those previously recited in claim 34. Further, claim 34 has been canceled without prejudice or disclaimer to the subject matter contained therein.

The above-mentioned rejections are submitted to be inapplicable to the amended claims for the following reasons.

Claim 32 is patentable over the three rejections set forth above, since claim 32 recites a broadcast data receiving device including:

a receiving unit operable to sequentially receive the plurality of multimedia data and the attribute information, the plurality of multimedia data and the attribute information being included independently of each other in broadcast data, the attribute information including a table of information respectively corresponding to the plurality of multimedia data, and the table of information including information indicating a data type of the plurality of received multimedia data;

a storing unit operable to store the plurality of received multimedia data and the attribute information;

an outputting unit operable to output the plurality of stored multimedia data; and

a managing unit operable to create management information for collectively managing the plurality of stored multimedia data and the attribute information, to manage the plurality of stored multimedia data with reference to the attribute information associated with the management information, the plurality of stored multimedia data and the attribute information being kept under management in association with each other, to refer to the data type included in the attribute information associated with the management information, and to change a process, performed by the outputting unit, for outputting the plurality of stored multimedia data according to the data type. The combinations of (1) Vallone, Vynne and Mohamed, (2) Vallone, Vynne and Augenbraun, and (3) Vallone, Vynne and WO 99/22502 all fail to disclose or suggest the multimedia data and the attribute information as recited in claim 32.

Regarding Vallone, it discloses a system including a parser 401 that receives an input stream and divides the stream into events, private data, video, and audio which are stored in separate buffers 410-413. Program logic reads the events stored in the event buffer 413 (602) and generates a sequence of logical segments 603 which correspond to parsed MPEG segments 615. The program logic continues to generate the logical segments 603 until a fixed buffer size is reached. Once this occurs, the program logic generates a new buffer, called a packetized elementary stream (PES) buffer 605 containing these logical segments 603 in order, plus ancillary control information. This new buffer is then passed to other logic components, which may further process the stream in the buffer by, for example, presenting it for decoding or writing it to a storage medium. (See column 6, line 29 - column 7, line 37 and Figures 4-6).

In the rejection, the ancillary control information is relied upon as corresponding to the claimed attribute information. However, as discussed above, the program logic generates the ancillary control information when it generates the PES buffer 605. The ancillary control information is not disclosed in Vallone as being received by the parser 401 in the input stream. Therefore, Vallone clearly does not disclose or suggest the claimed feature of the receiving unit operable to sequentially receive a plurality of multimedia data and attribute information, the plurality of multimedia data and the attribute information being included independently of each other in broadcast data. Also, as admitted in the rejection, Vallone fails to disclose or suggest attribute information including a table of information respectively corresponding to the plurality of multimedia data, and the table of information including information indicating a data type of the plurality of received multimedia data. Further, Vallone fails to disclose or suggest a

managing unit operable to create management information for collectively managing the plurality of stored multimedia data and the attribute information, to manage the plurality of stored multimedia data with reference to the attribute information associated with the management information, the plurality of stored multimedia data and the attribute information being kept under management in association with each other, to refer to the data type included in the attribute information associated with the management information, and to change a process, performed by the outputting unit, for outputting the plurality of stored multimedia data according to the data type.

Additionally, regarding the provisional application to which Vallone claims priority, it discloses a method for transmitting data used for ensuring that information in a central site database 100 is the same as information in a client site database 200. Specifically, the data contained in the database of the server is appropriately divided into a plurality of pieces of data (subsets), and the subsets are transmitted as object data to a terminal (a client system 101) using a broadcast wave (broadcast transmission 108) or a telephone line (telephony service 111). The terminal collects the transmitted data so as to construct the same data as the data contained in the database of the server.

Further, "The database of television viewing information" section discloses a viewing object and the "Basic Television Viewing Object Principles" section discloses that television viewing objects are structured as a collection of attributes. This clearly means that a portion of the viewing objects is the attribute, and a collection of the attributes is the objects. Therefore, the "attribute" and "object" are not independent from each other in a broadcast wave. As a result, at least one of Vynne, Mohamed, Augenbraun and WO 99/22502 must disclose or suggest the above-discussed features recited in claim 32 in order for at least one of the three rejections to render claim 32 obvious.

Vynne discloses that digital data (watermark, signature), which is embedded in compressed video data, is extracted from video data. Further, as shown in Table 3.1, signature information is extracted from a video frame so as to construct table information. However, Vynne does not disclose or suggest a table of information including information indicating a data type of the plurality of received multimedia data or referring to the data type included in the attribute information associated with the management information, and to change a process, performed by an outputting unit, for outputting the plurality of stored multimedia data according

to the data type as recited with regard to the receiving unit and managing unit, respectively, in claim 32. Therefore, at least one of Mohamed, Augenbraun and WO 99/22502 must disclose or suggest these features in order for at least one of the three rejections to render claim 32 obvious.

Regarding Mohamed, it discloses the extraction of a descriptor representing information indicating a feature of content, such as audio data and video data, from the content, so as to effectively retrieve the content using the extracted descriptor. However, Mohamed does not disclose or suggest a table of information including information indicating a data type of the plurality of received multimedia data or referring to the data type included in the attribute information associated with the management information, and to change a process, performed by an outputting unit, for outputting the plurality of stored multimedia data according to the data type as recited with regard to the receiving unit and managing unit, respectively, in claim 32.

Regarding Augenbraun, it discloses that transmitted information is augmented with attributes which are used at a receiver to select and locally store information that is of interest to each receiver's user, wherein the attributes and the user selection pattern determine the criteria for storing information locally. The attributes include the utility of each data element in time; interest categories and a level of interest for each of the categories determined for the collective users; repeat time to the data element; and a hyperlink to associated data elements. Therefore, Augenbraun discloses a technique for storing necessary information from the transmitted information by using the attributes and the user selection pattern. However, Augenbraun does not disclose or suggest a table of information including information indicating a data type of the plurality of received multimedia data or referring to the data type included in the attribute information associated with the management information, and to change a process, performed by an outputting unit, for outputting the plurality of stored multimedia data according to the data type as recited with regard to the receiving unit and managing unit, respectively, in claim 32.

Regarding WO 99/22502, it discloses a system for delivering web content from a webcast center over a broadcast medium to multiple clients. The web content is in the form of web pages found at the sites. The web pages are constructed from various types of content including computer data, audio, video, animation, bit maps or other graphics, applications or other executable code, text, hyper media, or other multimedia types. However, WO 99/22502 does not disclose or suggest a table of information including information indicating a data type of the plurality of received multimedia data or referring to the data type included in the attribute

information associated with the management information, and to change a process, performed by an outputting unit, for outputting the plurality of stored multimedia data according to the data type as recited with regard to the receiving unit and managing unit, respectively, in claim 32.

Based on the above discussion, it is apparent that none of the combinations of (1) Vallone, Vynne and Mohamed, (2) Vallone, Vynne and Augenbraun, and (3) Vallone, Vynne and WO 99/22502 disclose or suggest the present invention as recited in claim 32.

Regarding claim 37, it is patentable over the combinations of (1) Vallone, Vynne and Mohamed, (2) Vallone, Vynne and Augenbraun, and (3) Vallone, Vynne and WO 99/22502 for reasons similar to those set forth above in support of claim 32.

Claim 35 has been rejected as being obvious from the combinations of (1) Vallone, Vynne, Mohamed and "Official Notice", (2) Vallone, Vynne, Augenbraun and "Official Notice", and (3) Vallone, Vynne, WO 99/22502 and "Official Notice". However, claim 35 is submitted to be patentable over these references for the reasons set forth above in support of claim 32, since claim 35 depends from claim 32.

Claims 38-41 have been rejected as being obvious from the combinations (1) Vallone, Vynne, Mohamed and Shoff (US 6,240,555), (2) Vallone, Vynne, Augenbraun and Shoff, and (3) Vallone, Vynne, WO 99/22502 and Shoff.

Regarding Shoff, it discloses a technique for obtaining supplemental content synchronized with a video content program, thereby allowing a viewer to perform interactive control on the video content program. In order to enable the interactive control, an electronic programming guide (EPG) is checked, and it is determined whether or not the video content program can be controlled in an interactive manner. If it is determined that the video content program can be controlled in an interactive manner, then a target specification is obtained from the EPG and activated. The target specification contains information about the supplemental program to be used to extend the video content program.

However, it is apparent that the technique of Shoff merely controls the video content program in an interactive manner when the EPG contains information which allows for such control. Shoff does not disclose or suggest a table of information including information indicating a data type of the plurality of received multimedia data or referring to the data type included in the attribute information associated with the management information, and to change a process, performed by an outputting unit, for outputting the plurality of stored multimedia data

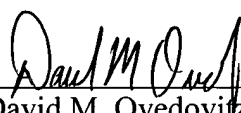
according to the data type as recited in claims 32 and 37. As a result, claims 38-41 are submitted to be patentable over these references for the reasons set forth above in support of claims 32 and 37, since each of claims 38-41 depends from one of claims 32 and 37.

Because of the above-mentioned distinctions, it is believed clear that claims 32 and 35-43 are allowable over the references relied upon in the rejections. Furthermore, it is submitted that the distinctions are such that a person having ordinary skill in the art at the time of invention would not have been motivated to make any combination of the references of record in such a manner as to result in, or otherwise render obvious, the present invention as recited in claims 32 and 35-43. Therefore, it is submitted that claims 32 and 35-43 are clearly allowable over the prior art of record.

In view of the above amendments and remarks, it is submitted that the present application is now in condition for allowance. The Examiner is invited to contact the undersigned by telephone if it is felt that there are issues remaining which must be resolved before allowance of the application.

Respectfully submitted,

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February 12, 2008